

What is claimed is:

- 1 1. A duct board material, comprising:
2 a substantially rigid fiber glass board having an interior surface and an exterior surface;
3 an exterior facing adhered to the exterior surface; and
4 a bonded, non-woven mat facing adhered to the interior surface, the mat having a
5 plurality of parallel or substantially parallel fibers oriented in a longitudinal direction of the duct
6 board material.
- 1 2. The duct board material of claim 1, wherein the mat facing comprises a plurality of
2 parallel or substantially parallel yarns.
- 1 3. The duct board material of claim 2, wherein the plurality of parallel or substantially
2 parallel yarns are embedded in the non-woven mat facing.
- 1 4. The duct board material of claim 3, wherein the yarns are embedded in the mat facing
2 without slack.
- 1 5. The duct board material of claim 1, wherein the mat facing has a plurality of fibers
2 preferentially oriented in the longitudinal direction.
- 1 6. The duct board of claim 5, wherein the mat facing has a ratio of machine direction tensile
2 strength to cross direction tensile strength of at least 2:1.
- 1 7. The duct board material of claim 1, wherein the exterior facing is a second bonded, non-
2 woven mat facing having a plurality of parallel or substantially parallel fibers oriented in the
3 longitudinal direction of the duct board material.
- 1 8. The duct board material of claim 1, wherein the exterior facing comprises a foil-scrim-
2 kraft layer.

1 9. The duct board material of claim 1, wherein the non-woven mat facing includes
2 glass filaments in a resinous binder.

1 10. The duct board material of claim 1, wherein:
2 the exterior facing comprises a foil-scrim-kraft layer,
3 the non-woven mat facing includes glass filaments in a resinous binder, and
4 the mat facing has a plurality of parallel or substantially parallel yarns embedded therein
5 without slack.

1 11. A duct board material, comprising:
2 a rigid fiber glass board having an interior surface and an exterior surface;
3 an exterior facing adhered to the exterior surface; and
4 a bonded, non-woven mat facing adhered to the interior surface, the mat having a
5 plurality of parallel fibers oriented in a longitudinal direction of the duct board material.

1 12. A duct board material, comprising:
2 a substantially rigid fiber glass board having an interior surface and an exterior surface;
3 an exterior facing adhered to the exterior surface; and
4 a plurality of parallel or substantially parallel fibers oriented in a longitudinal direction of
5 the duct board material and adhered to the interior surface.

1 13. The duct board material of claim 12, wherein the parallel or substantially parallel fibers
2 are adhered to the fiber glass board using an adhesive or resin.

1 14. The duct board material of claim 12, wherein the parallel or substantially parallel fibers
2 are fiber glass yarns.

1 15. The duct board material of claim 12, wherein the exterior facing is a bonded, non-woven
2 mat facing having a plurality of parallel or substantially parallel fibers oriented in the
3 longitudinal direction of the duct board material.

1 16. The duct board material of claim 12, wherein the exterior facing comprises a foil-scrim-
2 kraft layer.

1 17. A method for forming a duct board, comprising the steps of:

2 (a) forming a substantially rigid fiber glass board having an interior surface and an exterior
3 surface;

4 (b) adhering an exterior facing to the exterior surface; and

5 (c) adhering a bonded, non-woven mat facing to the interior surface, the mat facing having a
6 plurality of parallel or substantially parallel fibers oriented in a longitudinal direction of the duct
7 board material.

1 18. The method of claim 17, wherein the mat facing comprises a plurality of parallel or
2 substantially parallel yarns.

1 19. The method of claim 18, further comprising forming the non-woven mat facing with the
2 plurality of parallel or substantially parallel yarns embedded therein.

1 20. The method of claim 19, wherein the step of forming the non-woven mat facing includes
2 removing slack from the yarns.

1 21. The method of claim 18, wherein the step of forming the non-woven mat facing includes
2 feeding the yarns from one of the group consisting of a warp beam and a creel.

1 22. The method of claim 17, wherein step (c) is performed before the duct board enters a
2 curing oven.

1 23. The method of claim 17, wherein step (c) is performed after the duct board exits a curing
2 oven.

1 24. The method of claim 17, wherein the mat facing has a plurality of fibers predominantly
2 oriented in the longitudinal direction.

1 25. The method of claim 17, wherein the exterior facing is a second bonded, non-woven mat
2 facing having a plurality of parallel or substantially parallel fibers oriented in the longitudinal
3 direction of the board material.

1 26. A method for forming a duct board, comprising the steps of:
2 (a) forming a substantially rigid fiber glass board having an interior surface and an exterior
3 surface;
4 (b) adhering an exterior facing to the exterior surface; and
5 (c) adhering a plurality of parallel or substantially parallel fibers to the interior surface, the
6 plurality of parallel or substantially parallel fibers oriented in a longitudinal direction of the duct
7 board material.

1 27. The method of claim 26, wherein the parallel or substantially parallel fibers are included
2 in a plurality of parallel yarns.

1 28. The method of claim 26, wherein step (c) includes removing slack from the yarns.

1 29. The method of claim 26, wherein step (c) includes feeding the yarns from one of the
2 group consisting of a warp beam and a creel.

1 30. The method of claim 26, wherein step (c) is performed before the duct board enters a
2 curing oven.

1 31. The method of claim 26, wherein step (c) is performed after the duct board exits a curing
2 oven.